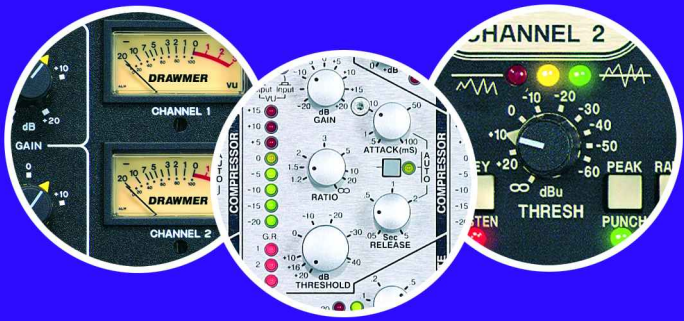
DRAWMER



Product Catalogue

W W W . D R A W M E R . C O M

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Introduction

The Drawmer Story...

More than two decades ago Drawmer began setting new standards in analogue signal processing with the introduction of the DS201 Noise Gate. Frequency Conscious operation and full envelope control made the DS201 an instant hit worldwide and has since proven to be the engineer's choice in recording studio and live sound environments.

Drawmer's philosophy has always been to design problem-solving products with instinctively laid out control parameters giving the engineer confidence in a quick and easy set-up, and most importantly - a great sounding result. This approach began with the breakthrough DS201 and continued with the 1960 Mic Pre/Tube Compressor, the world's first self contained voice channel. This set the pattern for future Drawmer innovations such as, Programme Adaptive gating and compression, Dynamic Spectral Enhancement, Tube Drive, Floating Threshold De-Essing, Tuneable Peak Punch and Multi-Band Tube Saturation.

Building on this pedigree of analogue signal processing, Drawmer brought a new generation of digital products to the market with the Masterflow Series. The Masterflow's 24bit/96kHz digital processing was designed not only to bring Drawmer's unique analogue sound into the digital domain, but also to offer a host of previously unattainable new features.

From the entry level MX Series to the high-end Sixties and Masterflow units, Drawmer continues to play a significant role at all levels of modern music production.

Introduction

Soundscape SDX100 plug-in

Drawmer also makes its specialist digital algorithms available in the form of plug-ins on the platforms of other leading manufacturers such as Digidesign, Mackie and Soundscape.

Design Comment...

“The Masterflow processors have been designed around analogue models and should bury the myth that you can’t get digital sounding as good as analogue. The new digital Bootstrap compression does something it is not possible to do in analogue: as well as stopping loud signals from overloading a recording, it will reach down and pull low level signals up to the required level ‘by their bootstraps’ - enabling a whisper to be the same level as a scream.”

Design Approach...

“Does it sound good..? Is it quiet..? If not, go back and do it again.”

Digital Management Systems

M-CLOCK MASTER CLOCK GENERATOR

The M-Clock is an affordable yet highly specified multiple output master clock generator that also incorporates four further channels of sample rate conversion - all locked to the same master clock. Further sync outputs are provided for those pieces of equipment without word clock connectors that can be synced via their digital audio inputs using an AES11 ('Digital Black') signal carrying no audio information.

The advantages of combining word clock with multiple channels of 'clock locked' sample rate conversion are significant and often under appreciated. With M-Clock all your 'pro' and consumer digital equipment (CD players, Minidisc, budget soundcards etc.) can run in the same system with no worries about finding a suitable sync source. If you have multiple pieces of digital equipment in your studio, whether professional or a mixture of professional and consumer, the M-Clock's precision, low jitter clock will provide optimum stereo imaging, lower noise and lower distortion - it's probably the most effective digital upgrade you'll ever make.

Master Clock Generator/Multiple Sample Rate Converter

- AES grade 1 master clock generator accurate to 1ppm
- 12 clock outputs 44.1 - 192kHz • 'Superclock' output for Pro-Tools
- 4 channels of 'clock-locked' stereo up/down SRC with simultaneous AES/EBU, SPDIF and TOSLINK outputs
- 4 AES 11 outputs to sync semi-pro units without word clock in
- Capability to interconnect up to 28 digital audio devices

Digital Management Systems

D-CLOCK WORD CLOCK MEASUREMENT AND DISTRIBUTION AMPLIFIER

The D-Clock is a dual input/twenty output word clock distributor with a 16 character blue LCD display providing a reference measurement of the incoming sample rate. Both AES/EBU and BNC word clock inputs feature a zero latency loopthrough output with switchable high impedance to maintain the correct level of the digital signal for onward distribution. The D-Clock displays incoming sample frequencies up to 768 kHz to an accuracy of 2ppm (parts per million) with two further modes - sample frequency with ±ppm error and sample frequency with % pull up/down for video users.

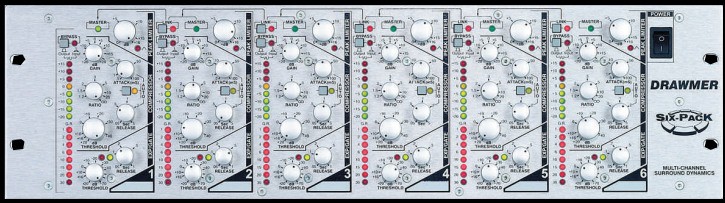
Sixteen BNC clock outputs are situated on the rear panel with a further four BNC clock outputs on the front panel for quick patching to other digital devices. The word clock outputs can be derived from either a word clock input or alternatively an AES/EBU audio signal from which clock information can be stripped. In the latter case, one of the many mic pre's with internal A/D conversion but no word clock output can be utilised as the master clock source for the whole digital studio.

2 in/20 out Clock Measurement and Distribution Amplifier

- *Inputs*: BNC with zero latency loopthrough
  AES with with zero latency loopthrough
- *Outputs*: BNC loopthrough / AES loopthrough
  20 BNC clock outputs - 33Ω impedance
- 3 sample rate measurement LCD modes accurate to 2ppm
- Universal voltage filtered mains power input

Surround Dynamics

SIX-PACK SURROUND DYNAMICS WITH UNIVERSAL LINKING

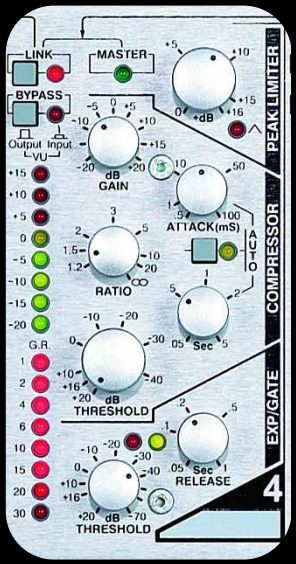


The Drawmer Six-Pack represents the industry's first dedicated multi-dynamics processor for surround mixing and continues Drawmer's tradition of audio 'workhorse' products which will continue to perform time and time again - even in a rapidly changing audio delivery environment.

The Drawmer Six-Pack is a single 3U unit that will provide dynamics control in any format from mono to full 5.1 surround. With six independent expander/gates, six independent auto or manual compressors, six 'zero overshoot' limiters and an LFE channel plus the ability to link channels individually, the Drawmer Six-Pack makes surround dynamics easy. In the studio, any analogue audio source from mono to stereo to full surround can be handled in one unit. In live sound, outboard applications such as drum processing or vocals can be dealt with in one easy to use unit, with both auto and manual operation. Alternatively the unit can be re-configured at the push of a button to provide dynamic control and speaker protection in the fast developing surround sound speaker rigs employed in clubs and venues.

The six channels of processing are arranged vertically to occupy the minimum rack space. On Channel six the user has the option to switch in a 120Hz filter to create an LFE channel. This feature is also useful to derive an LFE from a previously recorded five channel only, full band surround mix. Universal Linking facilities allow for the various configurations commonly used in multi-channel surround processing as well as the conventional stereo and single channel operation.

Surround Dynamics



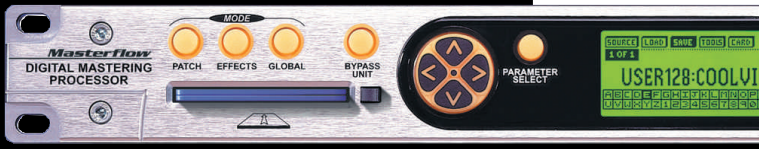
Channel 6 input offers a switchable 120Hz filter for either LFE (filtered) or normal operation.

6 channels of dynamic control with universal linking for surround sound processing

- Programme Adaptive, variable threshold, 'zero overshoot' limiter variable from 0dB to +16dB. An LED display of limiter activity.
- Soft-knee compressor with variable threshold (-40dB to +20dB), release (0.05 to 5 seconds), ratio (1.2:1 to infinity), attack (0.5 to 100mS) and gain make-up (±20dB). Switchable auto/manual attack and release with LED status display.
- Expander/Gate - with variable threshold control (-70dB to +20dB) and variable release time from 0.05 to 1 second. Dual LEDs indicate gate status
- Eight segment LED bargraph meters display gain reduction, input/output levels and single LEDs display Master/Link status
- Each channel features switchable Bypass with LED status. A relay hard wire bypass system allows the unit to still pass audio when the power is off.

Digital Masterflow

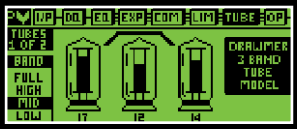
DC2476 MASTERFLOW DIGITAL PROCESSOR



Acknowledged as sounding more like a 'high end' analogue unit than a digital device the DC2476 is designed to be extremely easy and intuitive to use. Unlike conventional compressors, Drawmer's Bootstrap™ system pulls up low level signals to digital full scale, adding punch and increased loudness to audio signals in mastering, broadcast and live sound.

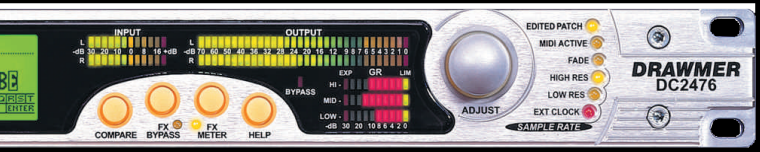
As well as incorporating A/D and D/A conversion the unit provides gain normalisation, dynamic EQ, a full-band Bootstrap™ compressor followed by a 5 band 'analogue modelled' parametric equaliser. The signal is then split into 3 user-definable bands where it is routed via a multi-band expander, multi-band 'Bootstrap™' compressor, limiter, tube modelling and stereo width stages. An intelligent Gain Management System monitors levels at critical points in the processing chain, making it impossible to clip the signal.

The five band digital EQ both sounds and behaves like the very best analogue outboard equalisers.



Tube modelling is based around an algorithm that recreates the characteristics of typical triode tubes. By introducing harmonic ripples into the selected frequency bands, it is possible to

Masterflow



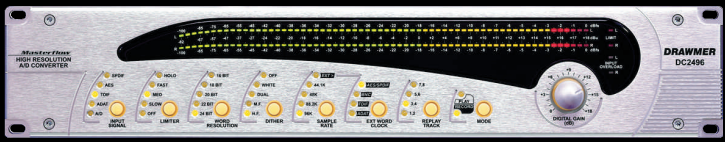
have shimmering highs without affecting the bass end, or fatten and warm up the low frequencies without affecting the clarity of the mid-range.

24 Bit/96 kHz Digital Mastering Processor

- 24 bit A/D - D/A conversion
- 32, 44.1, 48, 88.2, or 96kHz in/out sample rate
- Up/down sample rate conversion 32kHz - 96kHz
- Gain Normalisation for maximum loudness
- Both three band and full band 'Bootstrap' compression
- Three band Expansion and Limiting
- Five band Digital EQ with ±18dB range
- Multi-band tube modelling for musical tone shaping
- Three band stereo width control
- De-Essing • Dynamic EQ • Autofade
- Expert Factory patches and user memory
- Absolute output level trim for broadcast users, also maintained in bypass mode to prevent accidental level increases during transmission
- Tone generator with variable output levels for line-up purposes
- PCMCIA slot for parameter transfer to other Drawmer DC2476s
- AES/EBU, SPDIF digital input/output connectors
- Word Clock in/out, Midi in, out and thru
- Balanced +4dB XLR analogue input/output connectors

Digital Masterflow

DC2496 HIGH RESOLUTION A/D CONVERTER



The DC2496 uses Drawmer's proprietary 'multiple converter technology' to provide an A/D conversion package with a massive 130dB dynamic range and extremely low distortion. With built-in sample rate conversion, the DC2496 can output signals at 44.1, 48, 88.2 or 96kHz sample rates while implementing bit-rate reduction using one of the best sounding dithering strategies. A quality D/A converter is included for accurate monitoring of the digital signal. Additional 16/20 bit 44.1K/48K A/D conversion is provided for a safety back-up recording.

24 Bit/96 kHz High Resolution A/D Converter

- Proprietary 'Multiple Converter Technology' giving a true 130dB dynamic range at 24 bit/96kHz
- AES/EBU, SPDIF, TDIF and ADAT interfacing
- 96kHz/48kHz D/A for accurate monitoring
- 44.1, 48, 88.2, or 96kHz sample rate plus Ext Clock
- Up/down sample rate conversion
- Simultaneous 16/20 bit 44.1K/48K back-up output
- Digital Gain with four mode limiter for max level
- Format conversion including ADAT to TDIF and vice versa
- Enables 24 bit/96kHz stereo recording on 16 bit ADAT and Tascam DA88 machines via proprietary format
- Balanced +4dB XLR analogue input/output connectors

Tube Processing

Many musicians and recordists appreciate the convenience of working with PC soundcards and other computer based packages but remain disappointed with the poor quality of the integral converters and processing. The Tube Station's signal path and associated circuitry is specifically designed to capture the magic of tubes and maximise the signal level at the point of analogue to digital conversion - thereby committing the widest possible dynamic range into the digital domain.

TUBE STATION 1

Tube Station 1 (TS1) offers a wide dynamic range Class A mic/instrument pre-amp with HF Contour which can be assigned either to the onboard stereo tube compressor or alternatively to an external destination via its own dedicated output. Similarly, the compressor can be accessed independently via its own inputs for warming and fattening stereo mixes. A variable Tube Drive control allows user-definable amounts of saturation.

The TS1 offers digital outputs on SPDIF or AES/EBU at up to 24 bit resolution and 96K sample rate. Simultaneous analogue outputs are available on balanced XLR.

Mic/Inst pre-amp

- 60dB of gain • 48V phantom power • Clip LED • Phase reverse
- Variable high-pass 25Hz - 250Hz • Variable HF Contour
- Output 1/4 inch jack unbalanced • Send/return insert point
- Instrument input 1/4 inch jack • Mic input XLR balanced

Compressor

- Stereo Tube soft-knee compressor
- Single 'more compress' control for ease of use
- Variable attack and release controls • Variable Tube Drive • Gain trim
- Fixed threshold limiter • Analogue output level (does not affect digital out)
- 8 segment gain reduction bargraph
- Twin 8 segment left/right - input/output bargraph • Side chain access

Tube Processing

TUBE STATION 2

The Tube Station 2 (TS2) is a dual mono or stereo linkable soft-knee compressor. It encompasses all the features of the TS1 compressor section but with the added advantage of individual parameter controls for each channel. Each channel is equipped with a variable Tube Drive control which can be switched out of the signal path for instant A/B comparison.

Tube Station 2

- 2 channel Tube soft-knee compressor • Dual mono or stereo modes
- Single 'more compress' control • Variable attack and release controls
- Variable Tube Drive • Sidechain access • Fixed threshold limiter
- Analogue output level (does not affect digital out)
- 8 segment gain reduction - input/output bargraphs
- Balanced XLR +4dB - 1/4 inch jack -10dB inputs/outputs

DC1 Digital Output Module for TS1/TS2

- 24 bit resolution
- 44.1K, 48K, 88.2K, 96K sample rates
- SPDIF or AES/EBU outputs
- Word clock in with auto high sample rate sensing

Speaker Protection

SP2120 SPEAKER PROTECTOR

SOUND SYSTEM PROTECTION IN 2 EASY STEPS...

Step 1: Insert key to 'unlock' front panel and adjust VU meter pre-set until the peaks of the incoming audio illuminate the red endstop 0dB LEDs.

Step 2: Adjust max output level pre-set until sound system volume reaches the maximum permitted SPL as specified by the installer or client... remove key and sleep soundly!

- Key Holder access only • Takes only minutes to install
- Dual 16 segment Left/Right bargraphs for 'at a glance' level metering
- 'Protection' processing 16 segment bargraph display
- No sound quality loss even during heavy protection processing
- Once installed and calibrated completely eliminates the possibility of 'unauthorised' volume levels
- Reduces 'call-out' costs of sound system service/repair engineers
- Reduces system 'down time' and the resulting loss of venue income
- Isolation transformer output option

The SP2120 Speaker Protector offers strict level control and peace of mind for the contractor, installer and venue in the knowledge that only the maintenance engineer and the venue manager hold a key. The 1U, two channel processor eliminates the possibility of 'unauthorised' excessive sound pressure levels on speaker systems which could result in damage to both chassis drivers and amplifier electronics. The unit also gives a wide variety of venues such as clubs, theatres, bars etc. the opportunity to comply with the local noise level legislation. If the SP2120 receives increased signal levels, the transparent 'protection' circuitry is activated which maintains the specified system volume level without degradation in sound quality.

Pro Gates

In 1980 Ivor Drawmer developed the DS201, the world's first frequency conscious noise gate - a unit that was to redefine the role of the gate both in the recording studio and in the live sound environment. His unique design approach resulted in a gate which opened to user defined frequency bands, as well as signal level. He also incorporated additional attack, hold, and release parameters for comprehensive signal shaping. The DS201 transformed the noise gate from what was previously a simple on/off device into a powerful production tool. Drum sounds were vastly improved and such effects as gated reverb and gated room ambience became possible. It also enabled live sound engineers in concert hall situations to apply the desired amount of volume and EQ to drums without fear of ringing or feedback. Today the DS201, DS404 and DS501 remain the unchallenged industry standard noise gate worldwide.

DS201 DUAL NOISE GATE

2 Channel Frequency Conscious Noise Gate

- Variable 'High Pass' (25Hz to 3.5kHz) and 'Low Pass' (250Hz to 35kHz) Filters for frequency triggering
- Individual 'Attack', 'Hold' and 'Release' for comprehensive envelope control
- Variable Range • Ducking • Stereo Linking
- 1/4 inch jack Key Inputs • Key Listen facility
- Drawmer 'traffic light' gate status metering
- Balanced +4dB XLR input/output connectors

In use - Gate Filters

Setting the filters so the gate is only opened by low frequencies will eliminate any false triggering of tom-tom gates by overhead cymbal crashes.

DS404 QUAD NOISE GATE

4 Channel Frequency Conscious Noise Gate in 1U

- Variable 'High Pass' (25Hz to 3.5kHz) and 'Low Pass' (250Hz to 35 kHz) Filters for frequency triggering
- Auto attack • Variable release • Switchable range (-20dB or -90dB)
- Selectable 'Hard' (drums, percussion etc.) or 'Soft' (vocals etc.) gate operation
- 1/4 inch jack Key Inputs • Key Listen facility
- Master/slave configurable (e.g. 1 master - 3 slaves etc.)
- Drawmer 'traffic light' gate status metering
- Balanced +4dB XLR input/output connectors

In Use - Hard/Soft Gating

Each channel of the DS404 can be operated as a HARD or SOFT gate, providing quite different characteristics. Two coloured LED's clearly indicate mode status.

In the HARD mode the DS404 offers ultra-fast response time, stable triggering with complete freedom from chatter around threshold and a specialised release contour which is ideally suited to drums and other percussive material. In the SOFT mode the DS404 becomes a versatile expander particularly suited to vocals. Drawmer's unique 'Programme Adaptive' circuitry is used to optimise the attack time and expander ratio as well as having some effect on the manual release setting. A more gentle release characteristic is utilised to complement the SOFT gate.

Pro Gates

DS501 POWER GATE

2 Channel Frequency Conscious Noise Gate with Peak Punch

- Tuneable Peak Punch (75Hz to 16kHz) with level control
- Full band Peak Punch with level control
- 'Approaching Threshold' LED bargraph showing signal activity
- Variable 'High Pass' (25Hz to 3kHz) and 'Low Pass' (250Hz to 30kHz) filters for frequency triggering
- Individual 'Attack', 'Hold' and 'Release' for comprehensive envelope control
- Variable range • Ducking • Stereo Linking
- 1/4 inch jack Key Inputs • Key Listen facility
- Drawmer 'traffic light' gate status metering
- Balanced +4dB XLR input/output connectors

In Use - Peak Punch

Designed principally for drum and percussive gating applications, tuneable Peak Punch makes it possible to add transient 'punch' to frequencies lacking in individual drum sounds, adding greater definition and presence to the gated signal. Using low frequency Peak Punch adds depth to thin drums, whilst higher frequency Peak Punch can dynamically boost rim shots or the 'crack' of a snare drum.

Combined Dynamics

DSL424 TWOPLUSTWO DYNAMICS

The DSL424 provides the engineer with a 1U four channel comprehensive toolbox capable of solving the most complex dynamic problems. Incorporated in the 1U package are two industry standard frequency conscious noise gates and two soft/hard knee compressors with variable threshold limiting. The channels may be front panel configured as four individual stand alone processors, a stereo linked pair of comp/limiters with a stereo linked pair of gates. Alternatively, any combination of processing can be achieved by rear panel patching.

The DSL424 combines the gates of the DS404 with the comp/limiters of the DL441 to provide a versatile 1U problem solver invaluable in applications where rack space is limited.

2 Channel Frequency Conscious Noise Gate / 2 Channel Comp/Limiter Combination

Noise Gate

- Variable High Pass and Low Pass Filters for frequency triggering
- Auto attack • Variable release • Switchable range with LED status
- Selectable ‘Hard’ (drums etc.) or ‘Soft’ (vocals etc.) gate modes
- 1/4 inch jack Key Inputs • Key Listen facility • Slave linking
- ‘Traffic light’ gate status metering • Balanced +4dB XLR in/out

Compressor/Limiter

- Switchable Hard/Soft knee compression with variable threshold, ratio and output gain
- Auto attack/release • Variable ‘zero overshoot’ transparent limiter
- High resolution bargraph metering of gain reduction and input/output level • Stereo linking • Balanced +4dB XLR in/out

Pro Compressors

The Drawmer Pro Compressor range sets new standards of sonic excellence. Their combination of features, displays and well designed control functions make them an outstanding performer for a vast range of recording, broadcast and sound reinforcement applications. The Pro Compressors incorporate many automatic functions allowing the engineer to achieve optimum results in the minimum set-up time, but does not compromise skilled users with limited controls. Their sophisticated design produces a smooth, transparent and warm sonic performance.

DL241 AUTO COMPRESSOR

2 Channel Gated/Compressor/Limiter

- Variable threshold 'Programme Adaptive' gate with switchable fast/slow release
- Variable threshold/variable ratio/variable output gain soft knee compressor
- Selectable auto/manual attack and release times
- High resolution bargraph metering of gain reduction and input/output levels
- Variable 'zero overshoot' transparent limiter
- Stereo Linking • Switchable -10dB/+4dB operating level
- Available with balanced XLR or 1/4 inch stereo Jack (TRS) input/output connectors

In Use - Auto Attack/Release

Selecting the 'auto' mode removes the need for manual adjustment of attack and release time parameters. This is particularly useful when the programme being treated does not have predictable or consistent dynamics - often the case with vocals or virtuoso bass guitar performances.

Pro Compressors

DL251 SPECTRAL COMPRESSOR

2 Channel Hard/Soft Knee Compressor/Enhancer/Limiter

- Switchable hard/soft knee compressor section with variable threshold, ratio and output gain
- Selectable auto/manual attack and release
- Enhance section incorporating Drawmer's proprietory 'Dynamic Spectral Enhancement' circuitry designed to restore high frequency energy under heavy compression
- High resolution extended bargraph metering of gain reduction and input/output level
- Variable threshold 'zero overshoot' transparent limiter
- Side chain access, side chain listen • Switchable -10dB/+4dB operating level
- Balanced XLR input/output connectors

In Use - Dynamic Spectral Enhancement

A variable Enhance control can be used to 'dynamically' boost any high frequency energy lost during the full band compression process and has sufficient range to add additional 'spectral energy' to the programme material for creative processing. When no compression is taking place, the 'Dynamic Spectral Enhancement' circuitry is inoperative and so no change is made to the signal. However, as the signal hits the compressor threshold and gain reduction occurs, the enhancement system 'kicks-in' applying dynamic boost which is directly related to the amount of gain reduction taking place.

Pro Compressors

DL441 QUAD AUTO COMPRESSOR/LIMITER

4 Channel Auto Compressor/Limiter in 1U

- 4 channels of switchable Hard/Soft knee compression with variable threshold, ratio and output gain
- Fully automatic attack and release
- Variable 'zero overshoot' transparent limiter
- High resolution bargraph metering of gain reduction and input/output level
- Stereo linking (e.g. 2 stereo compressors, 1 stereo plus 2 mono compressors, etc.)
- Switchable -10dB/+4dB operating level
- Balanced XLR input/output connectors

In Use - Hard/Soft Knee Compression

The compressor section may be switched to provide either HARD or SOFT knee compression.

In SOFT knee mode the ratio increases gradually over a 10dB input level range until it reaches the ratio set on the front panel control, thus achieving a more natural sounding compression. In HARD knee mode the compressor provides a more precise means of controlling gain, where the ratio as set on the front panel is applied immediately the signal exceeds threshold. The latter is particularly favoured in broadcast applications.

Noise Reduction

DF330 UNIVERSAL NOISE FILTER

2 Channel 'Single-Ended' Noise Reduction System

- No 'encode' or 'decode' necessary
- Automatic high frequency restoration circuitry
- Programme Adaptive expander section featuring variable threshold, release, switchable ratio, attenuation, 50Hz 18dB per octave high pass filter to eliminate 'rumble'
- Dynamic Filter section with variable threshold and bypass
- Switchable auto filter mode for tracking levels
- High resolution bargraph metering of input, gain reduction and kHz Filter activity
- Stereo Linking and overall system bypass
- Simultaneous balanced +4dB XLR input/output connectors and unbalanced -10dB 1/4 inch jack for level interfacing

Most noise reduction systems require that the signal be encoded in some way before recording and then decoded inversely on playback. The Drawmer DF330 is a single ended noise reduction system which does not require any previous encoding. Instead, it uses a dynamic filter which senses the highest frequency of incoming program material and opens a filter to that frequency. It has been designed to dramatically reduce noise, regardless of source, in a wide variety of recording, duplication and broadcast situations. Other applications would include: Analogue to digital mastering, reducing tape hiss and noise resulting from high gain and high frequency boost on mixing consoles, restoring degraded or poorly recorded material for tape duplication and resolving problems with noisy synthesizers, guitar amplifiers, effects units etc.

Distribution

DA6 BALANCED DISTRIBUTION AMPLIFIER

The distribution of mono and stereo balanced audio signals from a single source to multiple destinations has many applications including multi-zone sound reinforcement installations, live sports events coverage, broadcast studios, video suites, duplication or indeed anywhere high quality audio has to be distributed to a number of locations down long cable runs. The Drawmer DA6 is a 2 in/12 out distribution amplifier featuring XLR balanced inputs and outputs with optional transformer isolation available on any or all outputs.

Balanced Distribution Amplifier 2 input/12 output

- 1 Stereo in/6 Stereo out or 2 Mono in/12 Mono out (or any combination of both)
- Left/Right balanced XLR inputs featuring individual level controls and dedicated LED bargraph metering for balancing stereo material or two mono inputs
- Each output channel incorporates individual left/right level controls and a Mono/Stereo switch to select either one stereo output or two mono outputs
- The Output Monitor section consists of a six position ‘Channel Select’ switch enabling any of the twelve output levels to be displayed on LED bargraphs and monitored via the headphone jack socket which has its own level control
- Auxiliary balanced stereo jack sockets enable the connection of further DA6 units for distribution of more channels
- Balanced XLR input/output connectors
- Optional transformer isolation for outputs where remote amplifiers and recorders are fed from separate power supplies

Distribution

LA12 LINE DISTRIBUTION AMPLIFIER

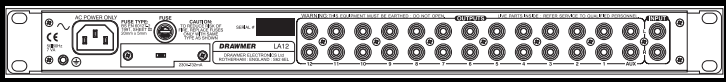
The LA12 is a low noise, low crosstalk distribution amplifier with high bandwidth specification, developed specifically for tape duplication. It is also ideally suited for distributing line level audio signals to multiple destinations in audio/visual, recording studio, installations etc. where long cable runs are not required.

Line Distribution Amplifier 2 input/24 output - unbalanced

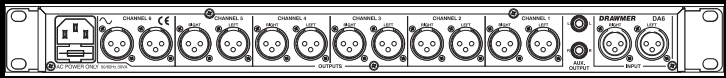
- 1 Stereo input/12 Stereo outputs - high bandwidth, low noise, low crosstalk
- Left/Right stereo input section with gain and balance controls
- 12 stereo outputs with individual level controls
- An auxiliary stereo output which follows the input gain and balance controls can be linked to the input of a second LA12 if more than twelve stereo outputs are required
- Professional quality unbalanced phono (RCA) connectors

Audio Connections:

LA12 LINE DISTRIBUTION AMPLIFIER

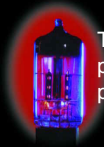


DA6 BALANCED DISTRIBUTION AMPLIFIER



Sixties Series

1960 MIC PRE/VACUUM TUBE COMPRESSOR



There is little doubt in the minds of many engineers and producers that vacuum tubes possess a unique sound quality providing a "warmer, more alive" sound...

2 Channel Mic/Instrument Pre-Amp/Vacuum Tube Compressor

- Two low noise mic pre-amps with variable gain, switchable 48V phantom power, 50Hz/100Hz high pass filters and clip LED
- Instrument tube pre-amp with variable gain and EQ, switchable low/high gain stage, brightness boost and EQ bypass
- Two soft knee tube compressors with variable threshold, attack, release and output gain
- Side chain access, side chain listen, bypass and stereo linking
- VU metering of gain reduction and output levels
- Insert points at both +4dB and -10dB
- Balanced XLR input/output connectors +4dB

Combining eight active tube stages and the low noise and reliability of solid state electronics, the Drawmer 1960 provides the ultimate direct interface between the sound source and the recording medium.

Sixties Series

1961 VACUUM TUBE EQUALISER

The 1961 combines low noise circuitry with twelve active tube stages to provide two channels of exceptional equalisation. The design concept incorporates variable input level controls allowing the user to decide how hard to drive the tubes...

2 Channel Four Band Tube Equaliser

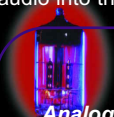
- ±20dB variable input drive with LED bargraph enabling 'soft' or 'hot' tube sound
- Fully variable high pass (15Hz - 500Hz) and low pass (2.5kHz - 56kHz) filters with switchable bypass
- Four overlapping EQ bands (20Hz - 200Hz, 100Hz - 1kHz, 500Hz - 5kHz, 2.5kHz - 25kHz) ±18dB cut/boost each with variable octave ('Q' width) and bypass
- Soft clip LED, overload LED and overall channel bypass
- Switchable -10dB/+4dB operating level
- Insert points • Balanced +4dB XLR input/output connectors

The 1961 and 1960 can be interlinked to provide, in effect, a two channel vacuum tube mixing console - the perfect mastering or post audio 'sweetening' tool.

Sixties Series

1962 DIGITAL VACUUM TUBE PRE-AMP

From the silence of the noise floor to the onset of clipping, the Drawmer 1962 provides an input dynamic range of more than 133dB - release your audio into the Great Wide Open...



2 Channel Mic/Instrument Pre-Amp with processing and optional 24 Bit A/D Conversion

Analogue Features:

- Two wide dynamic range, low noise mic pre-amps with variable gain, switchable 'zero overshoot' limiting and phase reverse
- Two Instrument pre-amps with variable gain, switchable 20dB gain boost, and brightness boost for amplifier simulation
- Variable high/low pass filters • Three band fine tune EQ
- Two band Dynamic Spectral Enhancement
- Variable Tube Drive • Individual channel output level
- Stereo Mix section incorporating left/right pan pots and variable stereo output level
- Long scale 24 LED bargraph input metering plus channel output and mix output level bargraphs
- Stereo linking • Channel inserts • Balanced XLR in/out

Digital Features:

- Selectable 16, 18, 20 or 24 bit resolution
- Switchable sample rates 44.1kHz and 48kHz plus external sync
- AES/EBU, SPDIF digital outputs and TDIF or ADAT interfacing
- Available as analogue only with D62 24 bit digital module available as a retrofit

Sixties Series

1968 MERCENARY EDITION

The 1968 is a 1U Tube/FET ‘stereo bus’ compressor which by design delivers a transparent ‘open’ sound even during periods of heavy compression. Featured on both channels is a switchable ‘BIG’ mode which applies less processing to the fundamental low frequency but still disciplines the upward associated harmonics which if untamed can result in a ‘boomy’ or ‘boxy’ sound. The result - a solid bottom end with enhanced sub-bass and a smoother, wider frequency response overall.

The 1968 is a ‘stripped down’ version of the 1969 introduced to the market by customer demand for those not requiring the instrument and mic pre-amps incorporated in the 2U 1969.

2 Channel Tube/FET Compressor

- 2 soft-knee compressors with variable threshold, attack, release and output gain
- Switchable BIG control on each channel
- Dual mono or true stereo link operation
- Side chain access and side chain listen facility
- VU metering of gain reduction and output levels
- Switchable +10dB mode on VU re-scales the meter for users working at ‘hot’ output levels.
- VU red warning glow to signify ‘approaching clipping’
- Balanced +4dB XLR in/outs

Sixties Series

1969 MERCENARY EDITION

The 1969 was born from a collaboration between Drawmer and Mercenary Audio in the USA.

"We use a lot of vintage classics at Mercenary - original sounds not replicated by any currently manufactured devices. I wanted something that would hold up against the best of the best in tracking and mixdown, something that delivers stunning clarity and detail, even under heavy compression - the result is the 1969 Mercenary Edition."

Fletcher - Producer/Engineer, Mercenary Audio

2 Channel Mic/Instrument Pre-Amp/Vacuum Tube Compressor

- 2 mic pre's with Burr-Brown op amps, variable gain, 48V phantom power, 50Hz/100Hz filters and phase reverse
- Instrument tube pre-amp with variable gain, EQ and brightness boost
- 2 soft-knee compressors with variable threshold, attack, release and output gain
- True stereo link operation with switchable BIG mode for retaining bass frequencies
- Side chain access and side chain listen facility
- VU metering of gain reduction and output levels
- Individual +4dB/-10dB inserts • Balanced +4dB XLR in/outs

MX Series

The low cost MX Series brings Drawmer's professional processing within the budget of every musician, project studio and live performer. Whilst incorporating many automated features for fast, effective dynamic control the MX Series retains the instinctively laid out control parameters, sonic character and high technical specifications which make Drawmer the industry standard.

MX30 GATED/COMPRESSOR/LIMITER

2 Channel Automated Dynamics Processor

- Variable threshold 'Programme Adaptive' gate with switchable fast/slow release
- Variable threshold/variable ratio/variable output gain soft knee compressor with fully automatic attack and release
- Variable threshold 'zero response time' peak limiter
- Gain reduction and input/output bargraph metering
- Stereo linking
- Simultaneous balanced +4dB XLR and unbalanced -10dB Jack input/output connectors

The MX30 features intelligent circuitry which continually optimises Attack and Release parameters to suit complex dynamic material.

MX40 PUNCH GATE

The MX40 Punch Gate is a high value, four channel noise gate which produces professional results in the minimum set-up time. Frequency conscious gating is achieved by a single Trigger Frequency control (50Hz to 8K) enabling the user to select the frequency at which the gate will open. Also featured is Drawmer's proprietary 'Peak Punch™' technology designed to add definition and punch to gated drum sounds and percussion.

4 Channel Frequency Conscious Noise Gate with Peak Punch™

- Proprietary Peak Punch™ circuitry which adds real Punch to drum kits, funk bass, percussion etc.
- Single Trigger Frequency control enables simple 'point and gate' frequency conscious operation
- 1/4 inch jack key inputs/key listen facility
- Variable release, full auto attack, switchable range and bypass
- Drawmer 'traffic light' gate status metering
- Master/Slave configurable
- Balanced +4dB XLR input/output connectors

Simplified frequency conscious operation with the single Trigger Frequency control. Selecting low frequencies, for example, will prevent false triggering by hi-hats and cymbals.

MX Series

MX50 DE-ESSER

The human voice is one of the most diverse signals ever encountered by sound engineers because it contains such large variations in level and harmonic structure. Getting the desired vocal sound can sometimes prove difficult. Setting the EQ to give the vocal sufficient definition and 'cut' in the mix can cause large sibilant peaks which often lead to severe distortion. The MX50 'Vocal' De-esser solves these problems quickly and efficiently by reducing the level of the sibilant sounds whilst leaving the rest of the signal unchanged.

2 Channel Vocal De-Esser with Full or Split Band Operation

- Fully variable frequency (800Hz to 8kHz) with a 'more' De-Ess control
- Switchable 'Air' function retains above sibilance high frequency 'gloss' preserving upper harmonics
- Proprietary 'Floating Threshold' circuitry which auto-sets the level of incoming material, eliminating the need for a manual de-ess threshold
- Split Band operation - processes only signal frequencies above the set frequency level
- Full Band operation - reduces total signal level in response to the selected frequency band
- Switchable bypass • Linking facility for stereo full range material
- Simultaneous balanced +4dB XLR and unbalanced -10dB Jack input/output connectors

MX Series

MX60 FRONT END ONE

Mic Pre-Amp with Full Dynamics, E.Q. and Multi Band Tube Saturation

- '1960 style' wide dynamic range mic pre-amp, 48V phantom power, phase reverse and 100Hz high-pass filter
- Instrument pre-amp with variable gain, switchable 20dB gain boost and brightness boost for amplifier simulation
- Variable threshold 'Programme Adaptive' gate with switchable fast/slow release time
- De-esser with variable 'more' control and selectable male/female vocal processing
- Variable threshold/variable ratio soft knee compressor with fully automatic attack and release, output gain and gain reduction metering
- Powerful E.Q. section giving ±18dB comprising of high and low pass shelving filters, fully parametric mid section and variable 'Q' width
- Multi-band Tube Sound allowing variable drive across three frequency bands and replication of the 'classic' tube mic sounds
- Variable master fader (∞ to +15dB) with output bargraph metering
- Pre Fade Limiter with 'soft' (approaching limiter) and 'hard' (hitting limiter) LED display
- Channel insert point (1/4 inch Jack - tip send/ring return)
- Input connections - simultaneous balanced +4dB XLR and unbalanced -10dB Jack input connectors
- Output connections - simultaneous balanced +4dB XLR and balanced +4dB/unbalanced -10dB Jack output connectors

LIFETIME ACHIEVEMENT AWARD

The influential contribution of Ivor Drawmer to pro-audio design over the last twenty years has been recognised by the APRS (Association of Professional Recording Studios). The Association presented him with a coveted Award for Lifetime Technical Achievement to the Audio Industry at the Cumberland Hotel in London.

Drawmer's technical expertise, combined with a musical background as a keyboard player, has given him invaluable insight into the recording industry's needs and his design concepts have always been ahead of their time.

Sales Director, Ken Giles, comments, "Ivor's designs have not only played a significant role in the way that signal processing has evolved, but have also shaped the product ranges of our competitors. His past achievements with analogue circuitry and his presence now at the leading edge of 24 bit/96K digital processing illustrates his versatility and makes him a unique technical figure within our industry."

Ken Giles, Sales Director, (left) and
Ivor Drawmer, Technical Director

DRAWMER

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